115. Optimal Surgery and MOPP Chemotherapy in Infants with PNET of the Posterior Fossa

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Primitive neuroectodermal tumors (PNETs) of the posterior fossa (medulloblastomas) are one of the most common tumors in childhood. Their occurrence under the age of 3 has been found to be a grave prognostic factor. Conventional treatment modalities, i.e., surgery followed by craniospinal irradiation, have profound sequelae; growth retardation, endocrine dysfunction, and significant reduction in intellectual ability are common. In an attempt to improve prognosis and eliminate radiotherapy side effects, we have used a combination of maximal surgery and chemotherapy in infants with posterior fossa PNETs. The Table summarizes a series of 6 infants. All infants received mechlorethamine/vincristine/procarbazine/prednisone (MOPP) chemotherapy, which was repeated every 28 days and modified for myelosuppression. As depicted in the Table, 4 of 6 children are in complete remission for follow-up periods ranging from 6 months to 3½ years. One child developed acute lymphocytic leukemia (ALL) while in remission from his PNET, and succumbed to his disease; another patient experienced relapse and was salvaged using *cis*-platinum.

Patient No./Sex	Age at Diagnosis (mo)	Surgery	Outcome	Follow-up[a] (mo)
1/M	10	Excision	Alive	36
2/M	33	Excision	Dead[b]	19
3/F	12	Excision	Alive[c]	42
4/M	22	Partial excision	Alive	37
5/M	16	Excision	Alive	17
6/M	15	Partial excision[d]	Alive	8

[a]From diagnosis; [b]Died of ALL while in remission from PNET; [c]Received *cis*-platinum for relapse on MOPP; [d]Reoperated with complete excision.

See text for description of abbreviations.

In summary, it appears that MOPP chemotherapy following aggressive surgery is a viable alternative for irradiation in infants with PNET of the posterior fossa.